

# PUBLIC MEETINGS

## Goldwater Range Integrated Natural Resources Management Plan

**Sponsored by:** Luke Air Force Base and Marine Corps Air Station Yuma

**Purpose:** To hear your comments on the Department of Defense's plans for preparing an Integrated Natural Resource Management Plan (INRMP) for the Barry M. Goldwater Range

**Meeting Dates and Locations (Open house 5:30-7:00 p.m. followed by a short presentation at 7:00 p.m.)**

Monday, 7 August 2000  
Glendale Adult Center  
Palo Verde Building  
7121 North 57th Avenue  
Glendale, Arizona 85301

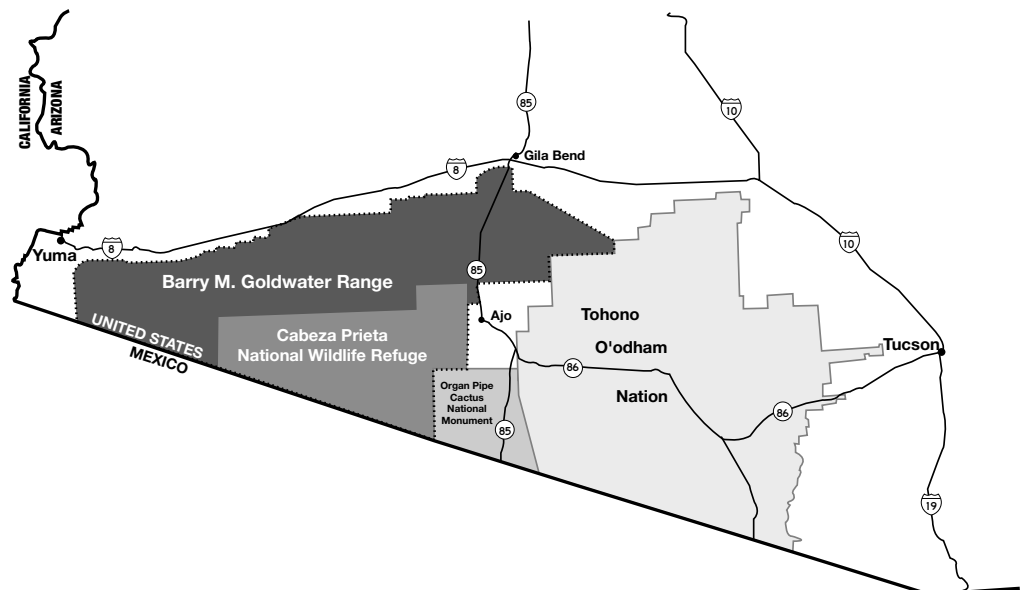
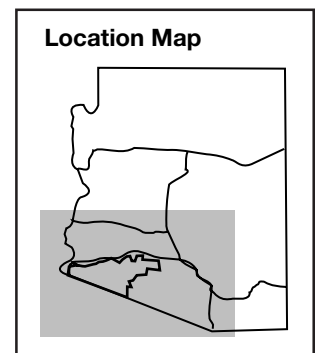
Tuesday, 8 August 2000  
Ajo Community Center  
290 East 5th Street  
Ajo, Arizona 85321

Wednesday, 9 August 2000  
El Rio Center  
1390 West Speedway Boulevard  
Tucson, Arizona 85745

Thursday, 10 August 2000  
Kofa High School  
3100 Avenue A  
Yuma, Arizona 85364

Friday, 11 August 2000  
Gila Bend Union High School  
308 North Martin  
Gila Bend, Arizona 85337

Tuesday, 15 August 2000  
Tribal Council Chambers  
Sells, Arizona 85634



**A Tohono O'odham  
translator will be available  
at the Sells public hearing.**

**Come and give your input to the Air Force and Marine Corps**

# **PREPARING AN INTEGRATED NATURAL RESOURCES MANAGEMENT PLAN (INRMP) FOR THE BARRY M. GOLDWATER RANGE**

## **A PRIMER ON THE INRMP PLANNING PROCESS**

### **1.0 OVERVIEW**

#### **1.1 Renewal of the Military Range**

On 5 September 1999, the Barry M. Goldwater Range (BMGR) registered its 58<sup>th</sup> year as one of the Nation's finest and most productive reservations for training military aircrews how to fly, fight, survive, and win in aerial combat. One month later, on 5 October 1999, Congress reconfirmed the nation's continuing need for this range by passing the Military Lands Withdrawal Act of 1999 (MLWA -- also known as Title XXX of Public Law [P.L.] 106-65). The MLWA extends authorization for the BMGR for 25 years until 2024. Under the Act, the range lands are withdrawn from all forms of appropriation under the general land laws—including the mining, mineral leasing, and geothermal leasing laws—and are reserved for continuing military use. Land jurisdiction over the eastern and western parts of the BMGR is assigned to the Secretaries of the Air Force and Navy, respectively. Local Air Force command, control, and management of BMGR—East has been assigned to the 56<sup>th</sup> Fighter Wing (FW), Luke Air Force Base (AFB), Arizona. Local Navy command, control, and management of BMGR—West has been assigned to Marine Corps Air Station (MCAS) Yuma, Arizona.

#### **1.2 Ecological Significance of the BMGR**

Parallel to its continuing value as an essential national defense asset, the BMGR is also nationally significant because it continues to harbor some of the least disturbed and most ecologically important tracts of Sonoran Desert. In 1976, a National Park Service study<sup>1</sup> identified the range (which at the time included about 95 percent of the Cabeza Prieta National Wildlife Refuge and the Sand Tank Mountains and Sentinel Plain areas—sections of the BMGR that were not rewithdrawn for military use under the MLWA of 1999) as “ . . . *the best major reserve of unspoiled desert in the southwest . . .*” Although some changes in the BMGR environment have occurred over the last 25 years, the recent range renewal process—which included preparation of a Legislative Environmental Impact Statement (LEIS) for the proposed range renewal—found that the 1976 Park Service conclusion is still relevant. The BMGR, coupled with adjoining land areas under the jurisdiction of the Department of the Interior, still comprises the largest and best preserved unfragmented tract of Sonoran Desert. Direct evidence of the ecological health of the range lies in the fact that all of the native wildlife species believed to be present when military use began in 1941 are still present in their same relative abundance.

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<sup>1</sup> Wachter, B.G. Bull, and S.J. Reynolds. 1976. The Mojave-Donran Natural Region Study. U.S. Department of the Interior, National Park Service, Denver Service Center, Denver, CO 389 pp.

In essence, the biological diversity of the range is believed to be undiminished from the levels present before the military range was established.

### **1.3 Ecological Health and Military Use**

In large part, the ecological health of the BMGR has been maintained over the years because (1) the military aviation training conducted on the range requires that incompatible land uses be restricted from a large land area to protect public safety and prevent interruption of the mission, and (2) only a small percentage of the restricted land area is disturbed by military training activities. Safety requirements restrict both habitation and economic development of the range and specify that public visitation be directly controlled. Thus, activities such as livestock grazing; mining; agricultural crop production; and residential, commercial, or industrial development—which have caused significant ecological damage elsewhere within the BMGR region—have been excluded from the range. Some recreational use has been permitted where it is compatible with the safety requirements of the military mission, but most recreation activity has historically been of low, well-dispersed intensity in contrast to that experienced in nearby off-range locations.

Military activities have, of course, had some localized deleterious effects on the range environment. However, after nearly six decades of military use, only about 2.5 percent of the BMGR surface has been moderately to highly disturbed by these activities.<sup>2</sup> Another 7.5 percent of the range surface has experienced low to moderate levels of disturbance. Notably, military surface use has been distributed in such a way that most disturbance effects are widely scattered and native biological communities are generally unfragmented over the expanse of the BMGR. In other words, the long-standing withdrawal of the range for military purposes has had the side benefit of allowing natural processes to continue to dominate the course of the ecological landscape.

### **1.4 Resource Management Responsibility**

In renewing the BMGR and transferring federal jurisdiction for its lands to the Secretaries of the Air Force and Navy, Congress has not only assigned the Air Force and Marine Corps with the responsibility of using the range for national defense purposes but also to properly manage and protect the natural and cultural resources of the range. Interestingly, the military was responsible for surface management of BMGR lands from 1941 through 1986, the date of the last withdrawal act. Through most of this period, military stewardship rested principally on the benign benefits of military use in excluding potentially damaging land uses and restricting its own impacts to scattered localized sites.

Renewal of the BMGR, however, has heightened expectations for the quality of range land stewardship. To guide the military in its new land stewardship responsibilities, Congress has

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<sup>2</sup> The surface disturbance figures presented here are updated from those reported in the *Final Legislative Environmental Impact Statement for the Renewal of the BMGR Land Withdrawal*. The MLWA of 1999 reduced the area of the range from 2,668,100 acres to 1,733,921 acres by no longer including the Cabeza Prieta NWR.

directed, through the MLWA of 1999, that the Secretaries of the Air Force, Navy, and Interior will jointly prepare an integrated natural resources management plan (INRMP) for the BMGR in accordance with the Sikes Act of 1960 and Sikes Act Improvement Act (hereafter Sikes Act) of 1997 (also known as P.L. 86-797 and P.L. 105-85, but available to most users through the U.S. Code citations at 16 U.S.C. 670a et seq.) and provisions of the MLWA of 1999. The Sikes Act sets forth the Nation's policies and guidance to promote effective conservation, protection, and rehabilitation of natural resources on military installations (the BMGR is regarded as an installation under the Sikes Act) consistent with the use of such installations to ensure the preparedness of the Nation's Armed Forces [Sikes Act 16 U.S.C. 670a Subparagraph (a)(3)]. The Sikes Act embraces the cooperative management approach set forth in the MLWA of 1999 in that it requires military service Secretaries to prepare each INRMP in cooperation with the Secretary of the Interior and the head of the appropriate state fish and wildlife agency. The resulting INRMP must reflect the mutual agreement of all of the parties concerning the conservation, protection, and management of wildlife resources [Sikes Act 16 U.S.C. 670a Subparagraph (a)(2)].

## **1.5 BMGR Integrated Natural Resources Management Plan**

The Air Force and Marine Corps are initiating the preparation of an INRMP for the BMGR as directed by the MLWA of 1999 and Sikes Act. Concurrent with the INRMP planning process, these agencies are also initiating the preparation of an environmental impact statement (EIS) to assess the environmental consequences of the alternative management actions to be considered for inclusion in the INRMP. On the local level, MCAS Yuma and Luke AFB will serve as joint-lead federal agencies for preparing the INRMP and the concurrent EIS. Joining the Marine Corps and Air Force as partners in the INRMP and EIS planning processes are the Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (USFWS)—acting by the direction of the Secretary of Interior—and Arizona Game and Fish Department (AGFD)—acting by the direction of the Arizona Game and Fish Commission. The INRMP will represent the BMGR management interests of all of these agencies. Although the Air Force and Marine Corps will ultimately be accountable, the mutual intent of the agency partners is to implement the INRMP through their continuing cooperative efforts supported by ongoing public involvement programs.

With a few exceptions, the approach for preparing the INRMP and concurrent EIS (these two products will actually be developed as one document) will be fairly conventional to those who have previously participated in federal land management planning processes. For some of the public, the element of the INRMP process that may distinguish it most sharply from other federal land planning efforts is that Congress has already determined that the BMGR will be used first and foremost for military purposes. All other planned land management activities must be consistent with those purposes [Section 3031(a)(2) and (b)(1) of the MLWA of 1999 and Sikes Act 16 U.S.C. 670a Subparagraph (a)(3)]. This mandate should not be construed, however, as an impediment to preparing a management plan that provides for effective conservation, protection, and rehabilitation of natural resources; protection of cultural resources; and opportunities for sustainable public use. In fact, given the character of the military mission at the BMGR and the long-term environmental protections that military use has afforded to most of the range, there are significant opportunities to use, protect, and conserve resources and great latitude available to

develop effective management methods. Public interest and involvement in the INRMP planning and implementation process will be highly important to the quality of the management results.

As the preceding overview shows, the provisions of the MLWA of 1999 and the Sikes Act set the stage on which the BMGR INRMP will be developed. Accordingly, key provisions of these two acts that will most broadly shape the planning process are reviewed in the following sections to assist participants in the process to understand its purpose, direction, and scope.

## **2.0 STATUTORY GUIDANCE**

### **2.1 Land Use Versus Land Management**

For some, the approach pursued for the development of an INRMP for a military installation may raise questions about the differences between land use and land management. The distinctions are fundamentally important to the INRMP planning process.

For federal agencies, land use is the purposes for which land is used to support an agency's mission and land management is the activity pursued to support continuation of the agency's land use. The land managing agencies of the Departments of Agriculture and the Interior (e.g. Forest Service, Fish and Wildlife Service, National Park Service, and Bureau of Land Management) have land uses that are intrinsically based on natural and cultural resources management. The varying missions of these agencies are to manage land for multiple uses, fish and wildlife purposes, or protection of sensitive resources for the benefit and enjoyment of visitors. As a result, land use and land management for these agencies are deeply intertwined. Indeed, resource management plans prepared by these agencies often examine alternative mixes of land use for the properties under their jurisdictions as well as alternative methods of managing those uses. In essence, agencies of the Departments of Agriculture and the Interior are defined in large part by their land management missions.

The mission of the Armed Forces, however, is national defense. The use of land by defense agencies is grounded in the need to use land for defense mission purposes rather than for the management of land for its own sake. This is why it is important in the INRMP planning process that land use and land management be understood as separate concepts. Defense agencies must manage land first and foremost so that land uses necessary to support military missions can continue while simultaneously ensuring compliance with the suite of laws governing protection of natural and cultural resources.

The Sikes Act, which governs the management of Department of Defense (DoD) lands, addresses the issue of land use versus land management by directing that DoD land management must be "*Consistent with the use of military installations to ensure the preparedness of the Armed Forces, . . .*" [Sikes Act 16 U.S.C. 670a Subparagraph (a)(3)]. In other words, the range must be used to support National defense purposes and each natural or cultural resource management goal or course of action set forth in the INRMP must be consistent with those purposes. For the INRMP planning process, this means that resource management alternatives designed to protect, conserve, or rehabilitate natural or cultural resources must also be capable of

supporting and sustaining the military mission in order to be considered viable for continued study.

Proposed natural or cultural resource management practices do not, however, have to be directly in support of military mission requirements. Some practices such as dust suppression on roads or measures to comply with environmental laws such as the Endangered Species Act or National Historic Preservation Act may be designed and implemented directly in support of specific mission requirements. Other management practices, though, may support the military mission indirectly by furthering the biological health of the range or the security of its cultural resources. These actions could help to prevent unnecessary conflicts between military operations and resource protection requirements and, as a result, lend support to the continuing use of the BMGR for military purposes. The history of the BMGR includes many examples of management practices that are mutually compatible and beneficial to sustaining both military operations and resource conservation values and public use opportunities. The planning process for the INRMP is specifically designed to explore resource management proposals and alternatives that can benefit both military mission requirements and land conservation/public use goals.

What is clearly unacceptable for the INRMP are natural or cultural resources management proposals that would require that the military mission on the BMGR be reordered, constrained or curtailed in order to implement resource management actions. In the broadest terms, the resource management goals and courses of action developed for the INRMP must not result in a loss in the capability, capacity, or flexibility of the BMGR to support current or future military missions. On the other hand, it is within the scope of the INRMP planning process to closely examine prospective management goals and actions that promise to: (1) ensure that there is no net loss in range-wide biodiversity; (2) mitigate threats that could extirpate native species from the range; (3) rehabilitate natural resources; (4) protect cultural resources; or (5) sustain high quality public use. The planning process challenge is to develop management goals and prescriptions that can support and sustain both the military mission of the BMGR and proper stewardship of its natural and cultural resources.

## **2.2 Terms of the Range Withdrawal and Reservation**

As mentioned in the overview, the range renewal process accomplished by the MLWA of 1999 involved two steps: (1) withdrawing the range lands from all forms of appropriation under the general land laws and (2) reserving these lands for military use by the Secretaries of the Air Force and Navy. The results of both of these actions have important relevance for the INRMP.

The terms of the withdrawal specifically exclude mining, mineral, and geothermal development on the range for at least the duration of the 25-year withdrawal [Section 30301(a)(1)]. Livestock grazing and agricultural outleasing are not specifically mentioned in this section. However, Section 3031(b)(3)(E)(iv) of the MLWA of 1999 effectively excludes these land uses from the range by directing that the INRMP should provide for continuation of these activities only where they currently exist. Neither livestock grazing nor agricultural out-leasing has been sanctioned on the range since 1941. These activities have long been determined to be incompatible with the

military purposes of the range. As a result of these withdrawal terms, the INRMP will not need to address appropriative land uses.

Section 3031(a)(2) of the MLWA of 1999 reserves the BMGR for use by the Secretaries of the Air Force and Navy for

- (A) *an armament and high-hazard testing area;*
- (B) *training for aerial gunnery, rocketry, electronic warfare, and tactical maneuvering and air support;*
- (C) *equipment and tactics development and testing; and*
- (D) *other defense-related purposes consistent with those specified in this paragraph.*

The first relevance of these terms for the INRMP is the fact that the reservation of the BMGR for use by the Secretaries of the Air Force and Navy is a change from the previous terms under the MLWA of 1986 (P.L. 99-606). That Act reserved the range for use by the Secretary of the Air Force. The Marine Corps, a branch of the Navy, has been the principal military user of the western segment of the BMGR since 1959 by virtue of agreement between the Air Force and Navy. Under this arrangement, the Marine Corps served as the military activity manager of the western BMGR but the Air Force continued to be responsible for overall military environmental management of the entire range. The MLWA of 1999 changes this relationship by assigning jurisdiction and responsibility for BMGR—West to the Secretary of the Navy (who has in turn delegated the authority for range use and management to the Marine Corps) and for BMGR—East to the Secretary of the Air Force. Although these reservation terms technically create two separate ranges and provide the authority for the Air Force and Marine Corps to prepare separate INRMPs, these agencies are fully committed to continuing a long-term collaborative partnership for range management and use. Preparation of the INRMP by the Air Force and Marine Corps in partnership with the BLM, USFWS, and AGFD is a reflection of the commitment of these agencies not to fragment management of the BMGR ecosystem. The INRMP will address management of the range as a continuum over its entire landscape and in relationship to adjacent land.

### **2.3 Range Land Area**

The INRMP will be applicable to the lands within the new BMGR boundary established by the MLWA of 1999. This Act reduces the withdrawn area of the BMGR by approximately 35 percent by not including 934,179 acres formerly in the range. The lands that are no longer to be part of the range include the Cabeza Prieta NWR (822,000 acres or 1,284 square miles), Sand Tank Mountains Area (83,554 acres or 131 square miles), Sentinel Plain Area (24,756 acres or 30 square miles), Ajo Airport Area (2,779 acres or 4.3 square miles), and Interstate 8 Overlap Area (1,090 acres or 1.7 square miles) [Section 3031(a)(7)(c)]. Although the MLWA states that the new withdrawn area of the BMGR is approximately 1,650,200 acres (2,578 square miles), the full area of range is actually 1,733,921 acres (2,709 square miles). The full area of the range includes 1,650,200 acres of withdrawn public lands plus 83,721 acres of former state and private lands that are inside the range and were previously purchased by the Department of Defense.

The change in the land withdrawal area has no effect on either the dimensions of the range restricted airspace or operations within the airspace. The surface footprint of the restricted airspace continues to be 2,776,720 acres (4,323 square miles). The airspace continues to overlie the entire Cabeza Prieta NWR and military aviation activities over the refuge area are unaffected by the change in the size of the range land area [Section 3032 of the MLWA of 1999].

## **2.4 Duration of the BMGR Renewal and INRMP Planning Horizons**

As specified in Section 3031(d)(1) of the MLWA of 1999, the duration of the new BMGR withdrawal and reservation is 25 years from the date of the enactment of the Act. Consequently, authorization for the range will expire on 5 October 2024 unless Congress acts once again to grant authorization for continuing military use.

In order to provide for effective resource management over the course of the next 25 years, the BMGR INRMP must address both long- and short-term planning horizons. To properly manage natural and cultural resources for the long haul, particularly if the goal is to effectively protect and conserve the indigenous qualities of such resources, planning time horizons must be as long as practicable. The Secretaries of the Air Force and Navy will likely hold jurisdiction for the BMGR lands for at least the 25 years of the new range withdrawal.<sup>3</sup> Consequently, the logical long-term planning horizon for the INRMP is also 25 years. Long-term goals for protecting and conserving natural or cultural resources or for sustainable use would likely be presented in the INRMP without specific time-frame references, but would be conditions that managers would like to achieve or maintain over the course of the 25-year withdrawal for the BMGR.

The Sikes Act and the MLWA of 1999 both recognize that all recourse issues and needed management actions cannot be foreseen at the time that the INRMP is prepared and therefore require periodic reviews of the INRMP. The Sikes Act specifies that the reviews will be conducted every five years from the date of the original INRMP. Procedures for this short-term planning and review horizon will be built into the INRMP and will provide a ready avenue for incorporating appropriate adaptive management changes into the INRMP.

## **3.0 MANAGEMENT GOALS AND COURSES OF ACTION**

At its fundamental level, planning for natural and cultural resources management is driven by the development of management goals and courses of action to achieve those goals. A set of goals and courses of action is formulated to direct management of each resource area or issue – such as wildlife habitat, endangered species, or public safety – that is important at the installation. An INRMP takes shape as the different sets of resource goals and courses of action are assembled into a complete package for the integrated management of the installation's natural and cultural resources.

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<sup>3</sup> There is a provision in the MLWA for early termination of the withdrawal and reservation if either Secretary or both determines that there is no longer a continuing military need for the range [Section 3031 (f)(1)].

Goals may be defined as general expressions of desired future conditions that managers hope to achieve either during or beyond the planning horizon of the INRMP. Goals provide direction for management and benchmarks for assessing management success. An example goal for managing roads on the BMGR might include: (1) maintain those segments of the existing road network on the BMGR needed to support the military mission, other required agency programs, and access for sustainable public use; (2) close roads not needed for mission support or management purposes and that provide redundant access; and (3) restrict new road development pending a review of the need for alternatives to and environmental consequences of the proposed road.

Management courses of action usually define discrete, often sequential steps (or individual actions) that are performed in order to accomplish goals. In the vernacular of some planning processes, management courses of action are also referred to as management objectives and action items. The intent, however, is the same. To be effective, the individual steps must usually be well defined with a limited scope and have recognizable endpoints. Management courses of action usually describe steps that managers believe can be accomplished within the five-year update cycle of an INRMP, but also could be attendant to accomplishing longer-term goals. Individual actions within the overall course of action may be expected to be accomplished within timeframes as short or shorter than the annual budget cycle of the managing agency. The courses of action identified within an INRMP form the basis for justifying a military agency's annual budget requests for resource management. If funded, these tasks become the resource management actions implemented by the agency.

Among possible example courses of action that could be identified to accomplish the preceding example for road network goals are: (1) inventory military and other agency road use including the numbers of trips made on each road segment by each vehicle type, (2) survey road use by the public including the number of trips on each road segment, (3) develop criteria for identifying roads for closure, (4) identify effective road closure methods, (5) prepare a road management and (if necessary) closure plan, (6) prepare environmental impact and compliance documentation for implementing the road management and closure plan, and (7) implement road management and closure actions.

The focus at the beginning of the planning process for the BMGR INRMP, is necessarily on the development of resource management goals. Development of courses of action to accomplish these goals will occur as a subsequent step.

The development of appropriate resource management goals for the BMGR will take several steps. The first place to turn for guidance that is relevant to the development of appropriate resource management goals is the MLWA of 1999 and Sikes Act. Except for a few specific provisions, guidance in these Acts relevant to formulating management goals is expressed in broad terms that could suggest a range of interpretations. The Department of Defense (DoD) and its armed services branches, however, have developed policies and guidelines based on the Sikes Act that narrow and clarify the possible directions along which resource management goals may be developed. A review of these policies and guidelines is the next step on the way to identifying BMGR management goals. The step after that is to examine the legacy of resource protection, use, and management that has occurred at the BMGR over the last six decades and the resulting

condition of range resources. Finally, consideration of public viewpoints is the last piece that must be incorporated in the development of resource management goals.

A preliminary set of draft resource management goals for the BMGR is being prepared for public review during the scoping phase of the INRMP planning process. These preliminary goals are being derived according to the process described in the preceding paragraph—minus the pending public input step—and will be posted at this web site when complete. Following is a short summary of the rationale being used to develop this set of preliminary goals beginning with the MLWA and Sikes Act.

The MLWA of 1999 directs that the INRMP shall provide for “...*proper management and protection of natural and cultural resources...[on the BMGR], and for sustainable use by the public of such resources to the extent consistent with the military purposes [of the range]...*” [Section 3031(b)(3)(E)(i)]. As already noted in Section 2.1 of this primer and as expressed in this excerpt from the MLWA, both that Act and the Sikes Act make it clear that at least one part of determining the “properness” of candidate resources management proposals will be whether or not the proposed management will support the continuing and future military missions of the range.

Beyond this straightforward mission support requirement, the MLWA also offers a few specifics that have direct implications for developing resource management goals. To be consistent with the MLWA, INRMP goals must express the need to (1) provide for sustainable public use; (2) support American Indian access to sacred sites; (3) provide for wildlife management; and (4) require that gates, fences, or other barrier constructed in the future allow for wildlife access [Section 3031(b)(3)(E)].

The Sikes Act and agency policy directives/guidelines furnish further insight as to the full implications of “proper management” and “protection” of resources. Regarding “proper management,” the Sikes Act makes it clear that the purposes of the INRMP program are to provide for (1) the conservation and rehabilitation of natural resources, (2) sustainable multipurpose use of these resources including wildlife harvest but not consumptive uses, and (3) public access (subject to safety and military security requirements) [16 U.S.C. 670a Subparagraph (a)(3)]. A later section of the Sikes Act clarifies that—to the extent appropriate and applicable—an INRMP must provide for wildlife, land, and forest management; wildlife-oriented recreation; wildlife habitat enhancement or modification; and wetland protection, enhancement, or restoration to support wildlife or plants [16 U.S.C. 670a Subparagraph (b)(1)]. This same section also stipulates that sustainable public use must not be inconsistent with the needs of wildlife resources.

DoD has shifted its land management focus over the last 10 years or so from protection of individual species to ecosystem management. The two principal reasons for this shift are (1) the Sikes Act emphasizes promoting effective wildlife and habitat protection, conservation, and management, and (2) there is a concern that a disproportionate amount of attention in the past has been placed on managing the needs of individual high-profile species in possible conflict with underlying ecosystem functions. It is now the policy of DoD that its lands should be administered through an ecosystem management approach implemented through installation

INRMPs. The goal of DoD ecosystem management is to maintain and improve the sustainability and native biological diversity of ecosystems while supporting human needs, including the DoD mission. This goal is reflected in the Department level land management policies of the Air Force and Marine Corps. Ecosystem management and protection of biological diversity must consequently be important guiding elements of the BMGR INRMP.

Ecosystem management as directed by DoD policies is not the equivalent of, nor is it intended to be, wilderness management. The policy guidelines are intent on promoting/protecting natural process but do not preclude active management intervention deemed necessary to deal with issues such as invasive species, endangered species recovery, or barriers inside or outside of the installation to wildlife movement. DoD expects its resource managers to use the best available science, collaborative efforts with federal and state wildlife agencies, and consultations with outside experts and the public in reaching management decisions. If that science and collaborative efforts and consultations identify a need for management intervention, then the needed management actions are to be implemented.

An emphasis on ecosystem management dovetails effectively with the goals of previous BMGR management plans. The first comprehensive resources management plan for the range, adopted by the Air Force in 1986, was the Luke Air Force Range Natural Resources Management Plan (the range was renamed as the BMGR in the MLWA of 1986). That plan stated that the *[BMGR]* *should be managed to the greatest extent possible, given current and projected uses by the military, as a natural resource reserve in which natural processes are generally allowed to prevail*. In 1990, the BLM implemented the Lower Gila South Resource Management Plan (Goldwater Amendment) for the range. The Goldwater Amendment was based on the earlier Air Force plan and adopted many of its goals including the protection of plant communities, wildlife habitats, and species diversity.

#### **4.0 PLANNING PROCESS AND SCHEDULE**

The planning process for preparing the BMGR INMP and EIS should be familiar to readers that have participated in previous planning and EIS process for federal land management (Figure 1). Key steps in the process will include:

- (Step 3) defining the military mission requirements of the range
- (Step 7) identifying the key elements of the INRMP
- (Steps 9 and 12) developing resource management goals
- (Step 12) preparing resource management alternatives
- (Steps 11, 13, 15 and 17) conducting public scoping, workshops, and INRMP/EIS reviews

The resource issue workshops (Step 13) are intended to be a forum where some of the management issues of principal concern to the public can be further evaluated in view of the resource management goals and alternatives before the draft INRMP and EIS are prepared.

The other step requiring clarification at this time is Step 12 – preparation of management alternatives. The development of resource management alternatives was discussed previously in Section 2.1 of this primer. This section concludes by pointing out that it is not the purpose of the BMGR INRMP to explore alternative ways of conducting military operations in order to support resource management goals. Rather, the INRMP, as dictated by the MLWA of 1999 and the Sikes Act, must do the opposite—provide for natural and cultural resource management that is consistent with the military mission of the BMGR. A need to examine alternative ways of conducting military operations on the range may emerge as a result of endangered species management needs or other environmental compliance requirements, but should not arise as a result of resource management proposals developed for the INRMP.

The approach being evaluated for formulating resource management alternatives for the BMGR includes two parts. First, the degree of flexibility for pursuing various resource management goals will be evaluated for each area of the range based on the safety and security requirements of the military mission, legal and policy directives, existing management plans and decisions, public use interests, and resource values. For example, safety buffer areas surrounding target impact areas are not impacted to any significant degree by aerial bombing or gunnery training but must be off-limits to visitors to protect their safety. These safety areas would not be suitable locations to fulfil outdoor recreation management goals but could be ideal for meeting wildlife habitat conservation objectives.

Second, the limits-to-acceptable-change concept, used effectively in various environments by the U.S. Forest Service, is being considered as a possible management tool for balancing potential tradeoffs between public use and natural or cultural resource protection goals. The limits-to-acceptable-change method could be adapted to resource management areas such as public use, wildlife water development, fugitive dust control, or cultural resource protection. The method would also be useful as a framework for monitoring the environmental effects of military activities.

Using public use management as an example, alternatives based on limits of acceptable change would allow the EIS analysis to explore the relative environmental consequences of various levels of resource change (or impact) that would be tolerated under different public use scenarios. In this example, public access effects to plant communities, soils, or cultural resources within selected road corridors could be monitored. Using this concept, a set of management alternatives would be developed that allowed for differing levels of impact to the monitored resource components as a result of public use. The baseline alternative would prescribe that public use not cause any discernable change from the existing conditions in the monitored resources over a selected period of time. Another alternative could be developed that would allow resources in the monitored corridor to be degraded to an acceptable limit before management actions to arrest further change would be triggered. Still another alternative could prescribe that a restoration program be put in place to rehabilitate existing resource damage. The limits to acceptable change in this situation would require that public access damage in the

corridor be reduced from current levels or actions to arrest the continuing impacts would again be triggered.

One of the appeals of the limits to acceptable change approach in the preceding example is that it places no arbitrary limits on the volume of acceptable access, but only on acceptable visitor behavior. Thus, many well-behaved visitors that keep their vehicles on existing roads, carry out their litter, and do not disturb or remove cultural resources could continue to use the range in a sustainable manner. A few ill-behaved visitors, however, could cause impacts that exceed the acceptable limit and trigger adaptive management responses to arrest the offending activities. Available management responses could include many options such as increased law enforcement, better visitor education, restrictions on types of activities, or limits on access.

Alternatives using the limits to acceptable change concept have not been formulated yet, pending public input on the preliminary resource management goals, INRMP topics list, or other issues of concern. Your views on the limits to acceptable change concept as a BMGR management tool are also welcome. Please forward your comments on the INRMP planning process outlined in this primer, on the preliminary resource management goals when they become available, or any other issue relevant to the development of the INRMP to: BMGR INRMP, P.O. Box 67132, Phoenix, Arizona 85082-7132. You are encouraged to submit comments by 28 August 2000, the last day of the official INRMP/EIS scoping period to ensure they are fully considered in the early planning phases of the draft INRMP and EIS. There will be additional public involvement and comment opportunities on the development of the INRMP as the process progresses.

# Planning Process for Preparing the Goldwater Range INRMP and EIS

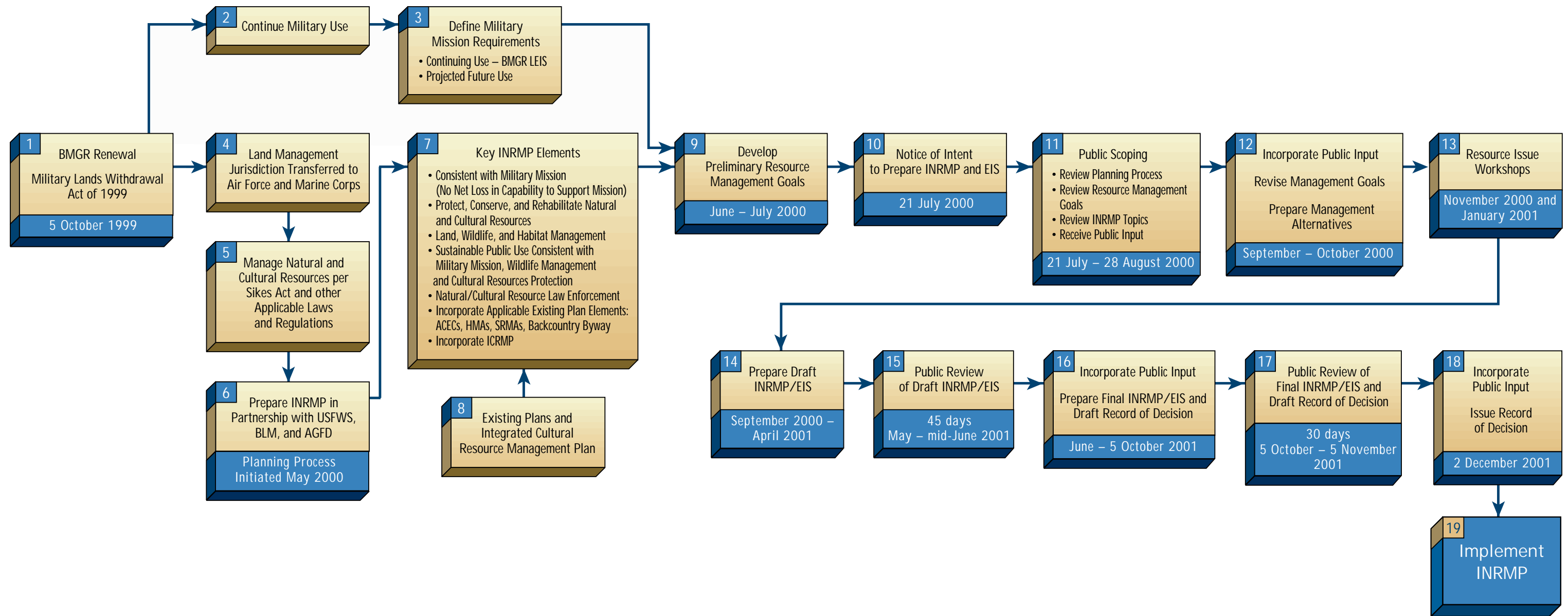


Figure 1